



*The Intensive Connection*

## LAY SUMMARY

Patients with acute severe health problems often need to be admitted to specialised hospital wards called Intensive Care Units (ICUs) where they can receive emergency treatment such as mechanical ventilation to support their breathing function via a machine, and sedative medications to reduce pain and anxiety associated with the severity of their condition. Although these interventions and treatments are often necessary to support patients' vital functions, they also carry the risk of important side effects.

Sedative drugs use, in particular, has a significant impact on short- and long-term outcomes. Despite international guidelines to help clinicians in the use of these drugs, there appears to be large variability in their use around the world such as use of different types of drugs, variable doses or rate of continuous infusions, etc.

Despite this known variable practice across the world, there are no large-scale international studies looking at the use of sedative drugs, pain-relief medications, and drugs to control agitation and restlessness in ICUs.

Therefore, we propose a multinational study to better understand how different ICUs use these drugs and if they follow the guidance published by expert clinicians. We will collect data in more than 100 ICUs across the world and include more than 2000 adult patients admitted to ICU and needing mechanical breathing. Data will be obtained retrospectively from medical records and there are no active interventions on patients that are part of this research study. All patients included will receive the standard of care as per their local intensive care unit.

We will recruit patients admitted to ICU before and during the COVID-19 pandemic to explore how practice has changed during this exceptional timeframe.

The information we will obtain from this study will hopefully inform more research, education, and quality improvement initiatives to optimise care of these vulnerable patients.